

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 03157328  
PUBLICATION DATE : 05-07-91

APPLICATION DATE : 14-11-89  
APPLICATION NUMBER : 01294008

APPLICANT : TOYO AEROSOL KOGYO KK;

INVENTOR : SHINOSAWA TAKAHIRO;

INT.CL. : A61K 9/12 A61K 7/32

TITLE : AEROSOL PRODUCT FOR APPLYING TO HUMAN BODY

ABSTRACT : PURPOSE: To obtain the subject product capable of keeping the spraying rate at or above a specific level and effective in surely attaining the cooling effect and keeping the effect by filling a propellant composed of liquefied petroleum gas and dimethyl ether in an aerosol container provided with a spray nozzle satisfying a specific condition.

CONSTITUTION: The objective aerosol product for human body has a spraying rate of the propellant of  $\geq 8.0\text{g}/10\text{sec}$  and is produced by filling a propellant composed of a liquefied petroleum gas and/or dimethyl ether in an aerosol container provided with a spray valve consisting of a stem having two stem holes of 0.45-0.65mm diameter or one stem hole of 0.45-0.8mm diameter and a housing having a vapor tap of 0.3-0.65mm diameter and a lower hole of 1.0-2.0mm diameter or free from vapor tap and having a lower hole of 0.65-2.0mm diameter. Since the propellant is devoid of fluorocarbons, the aerosol does not cause the destruction of ozonosphere to solve the problem of environmental pollution.

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PUBLICATION NUMBER : 02294382  
PUBLICATION DATE : 05-12-90

APPLICATION DATE : 09-05-89  
APPLICATION NUMBER : 01115652

APPLICANT : KAO CORP;

INVENTOR : MITA KATSUMI;

INT.CL. : C09K 3/30 A61K 7/00 A61K 7/11 A61K 7/32

TITLE : AEROSOL PRODUCT

ABSTRACT : PURPOSE: To obtain an aerosol product having high safety without affecting environment by filling a mixture comprising specific ratio of propellant and stock solution in aerosol container having specific hole diameter of valve.

CONSTITUTION: (A) A propellant composed of liquefied petroleum having 0.8-8.0 kg/cm<sup>2</sup>.G pressure at 20°C is mixed with (B) a stock solution containing principal component, additives and ethanol in a volume ratio at 25°C of 50:50-90:10 and resultant mixture is filled in an aerosol container installing a valve having 0.25-0.35 mm stem hole diameter, 0.30-2.0mm lower hole diameter of housing, 0-0.6mm vapor tap diameter of housing and 0.35-0.50-mm minimum diameter of injection hole to afford the aimed aerosol product.

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PUBLICATION NUMBER : 61161164  
PUBLICATION DATE : 21-07-86

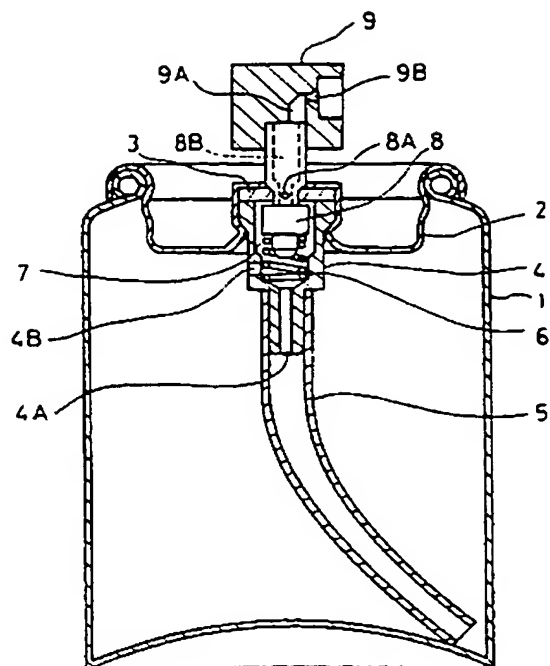
APPLICATION DATE : 29-12-84  
APPLICATION NUMBER : 59278654

APPLICANT : TOYO AEROSOL KOGYO KK;

INVENTOR : HIRANO TORU;

INT.CL. : B05B 9/04 // B65D 83/14

TITLE : AEROSOL PRODUCT



ABSTRACT : PURPOSE: To obtain an aerosol product having high safety and practicability by specifying the ratio of an injection agent to ethanol in case ethanol is incorporated in the injection agent and ethanol and by selecting the hole diameter at each place of the valve of an aerosol tank.

CONSTITUTION: In case a stock solution incorporated with ethyl alcohol using monodichlorodifluoromethane, e.g. 'Flon(R)' 22 as the injection agent, a mixture having 30:70~60:40weight ratio between flon 22 and ethyl alcohol. The diameter of the stem hole 8A of a stem 8, the diameter of the under hole 4A of a housing 4, and the maximum diameter of the injection nozzle 9B of an actuator 9 are regulated to 0.25~0.4mm, 0.3~1.0mm and 0.25~0.5mm, respectively, and a vapor tap 4B need not be formed, but in case of formation the hole diameter is regulated to  $\leq 0.55$ mm. In such a manner, the aerosol product having enough high safety, consequently large practical value can be obtd.

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PUBLICATION NUMBER : 2000316471  
PUBLICATION DATE : 21-11-00

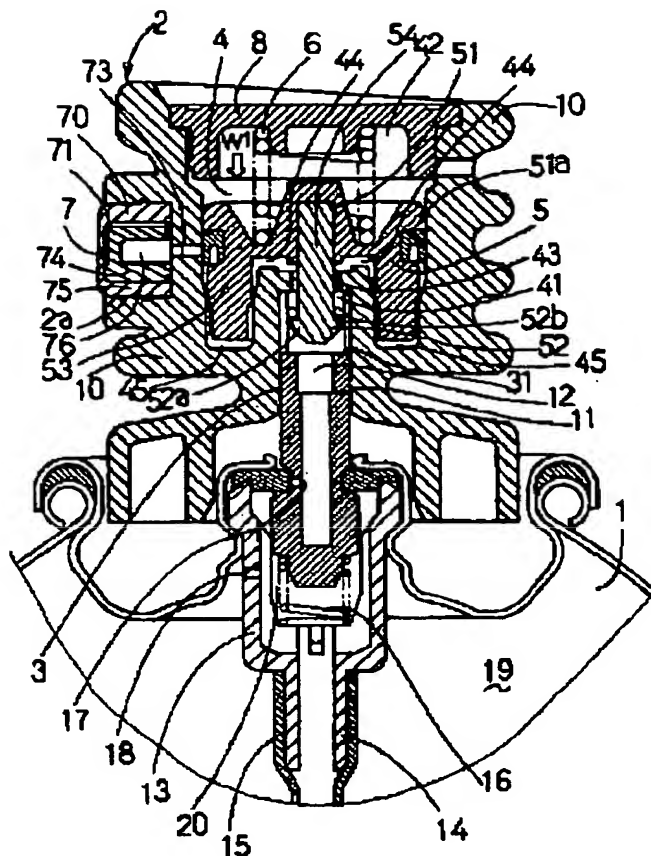
APPLICATION DATE : 07-05-99  
APPLICATION NUMBER : 11127736

APPLICANT : KYOWA INDUSTRIAL CO LTD;

INVENTOR : SEKI MOTOMUNE;

INT.CL. : A23D 9/00 B65D 83/38

TITLE : EDIBLE OIL PACKED IN AEROSOL  
CONTAINER



ABSTRACT : PROBLEM TO BE SOLVED: To obtain an edible oil which is packed in an aerosol container, can give a good spray-coated state in a particle state, inhibits the generation of smoke to decrease flammability, does not have a problem on safety, and does not give an uncomfortable smell and a disagreeable taste.

SOLUTION: This edible oil packed in an aerosol container is obtained by enclosing a liquid which is sprayed, contains an edible fatty acid triglyceride as a main component, and does not contain an alcohol, and a propellant such as nitrogen gas and carbon dioxide in an aerosol container 1 equipped with a spray mechanism. A vapor tap 18 for charging the propellant into a passage for the liquid to be sprayed is disposed in the spray mechanism of the aerosol container 1. A storage chamber 44 equipped with a regulator mechanism for controlling the spray pressure at a constant pressure is further disposed in the spray mechanism. Thereby, a spray amount per hour and a sprayed state are constant, and the liquid to be sprayed is sprayed in a particle state.

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